AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A process for producing at least two different propylene polymer grades, ~~in which process the isotacticity of the polymer is changed while keeping the melt flow rate of the polymer at a predetermined level during a transition of production from a first polymer grade to a second, said process being carried out in a polymerization arrangement comprising at least one polymerization reactor, where~~ which comprises polymerizing propylene ~~is polymerized~~, optionally with comonomers, under polymerization conditions in the presence of hydrogen as a molecular weight controlling agent and a Ziegler-Natta catalyst system, said catalyst system comprising a catalyst component, and [[an]] a first and second external donor, respectively, wherein the first external donor is changed to the second, but the hydrogen feed is ~~kept~~ maintained within at most 5% by volume at a predetermined level, during a transition of production from the first polymer grade to the second; and wherein the catalyst system comprises solid catalyst particles which exhibit active sites evenly distributed throughout the particles; wherein the catalyst particles are supported on an external carrier; wherein the isotacticity of the first polymer grade is changed while keeping the melt flow rate of the first polymer grade at a predetermined level during a transition of production from the first polymer grade to the second; and wherein said process is carried out in a polymerization arrangement comprising at least one polymerization reactor.

2. (Currently Amended) The process according to claim 1, wherein the external ~~donor is a~~ donors are strongly coordinating ~~donor~~ donors.

3. (Currently Amended) The process according to claim 1, wherein the external ~~donor is~~ donors are selected from the group of silane base donors having the general formula

$$R'''_nSi(OMe)_{4-n} \qquad (I)$$

wherein R''' is a branched aliphatic or cyclic or aromatic group, Me ~~stands for~~ is methyl and n is 1 or 2~~, preferably 2~~.

4. (Currently Amended) The process according to ~~any of the preceding claims~~ claim 1, wherein the external ~~donor is~~ donors are
selected from the group consisting of dicyclopentyl dimethoxysilane (donor D), cyclohexylmethyl dimethoxy silane (donor C), diisopropyl dimethoxysilane, methylcyclohexyldimethoxy silane, di-isobutyl dimethoxysilane, and di-t-butyl dimethoxysilane.

5. - 6. (Cancelled)

7. (Previously Presented) The process according to claim 1, wherein the catalyst component of the catalytic system comprises a compound of a transition metal of Group 3 to 10 of the Periodic Table, or of an actinide or lanthanide, and is obtained by forming a liquid-liquid emulsion system, which contains a homogeneous solution of at least one catalyst component, said solution being dispersed in a liquid medium, and forming the dispersed phase of the liquid-liquid

emulsion system, solidifying said dispersed droplets to form solid catalyst particles having a predetermined size range, and removing the solvent from the reaction mixture in order to obtain said solid catalyst particles.

8. (Currently Amended) The process according to claim 1, wherein the Ziegler-Natta catalyst system ~~comprises cocatalysts, preferably~~ includes as a cocatalyst an alkyl ~~aluminium compounds~~ aluminum compound.

9. (Previously Presented) The process according to claim 1, wherein the hydrogen feed is kept essentially at the predetermined level during the production of the second polymer grade.

10. (Currently Amended) [[A]] The process according to claim 1 ~~for producing in a polymerization reactor arrangement at least two propylene polymers having essentially the same level of MFR but different isotacticity, by polymerizing propylene monomers optionally with comonomers in the presence of a catalytic system comprising a catalyst component and an external donor~~, which ~~process~~ comprises preparing ~~in optional order~~:

- a first polymer having a predetermined MFR and a first degree of isotacticity in the presence of said catalytic system using a first external donor; and
- a second polymer having essentially the same predetermined MFR and a second degree of isotacticity in the presence of said catalytic system using a second external donor;
- wherein the hydrogen feed is maintained at an essentially constant level during the polymerization.

11. (Original) The process according to claim 10, wherein the catalyst component of the catalytic system comprises a compound of a transition metal of Group 3 to 10 of the Periodic Table, or of an actinide or lanthanide, and is obtained by forming a liquid-liquid emulsion system, which contains a homogeneous solution of at least one catalyst component, said solution being dispersed in a liquid medium, and forming the dispersed phase of the liquid-liquid emulsion system, solidifying said dispersed droplets to form solid catalyst particles having a predetermined size range, and removing the solvent from the reaction mixture in order to obtain said solid catalyst particles.

12. (Currently Amended) The process according to claim 10, comprising using [[a]] silane-based external ~~donor~~ donors having the general formula

$$R'''_nSi(OMe)_{4-n} \qquad (I)$$

wherein R''' is a branched aliphatic or cyclic or aromatic group, Me ~~stands for~~ is methyl and n is 1 or 2~~, preferably 2~~.

13. (Currently Amended) The process according to claim 10, wherein the external ~~donor is~~ donors are selected from the group consisting of dicyclopentyl dimethoxysilane (donor D), cyclohexylmethyl dimethoxy silane (donor C), diisopropyl dimethoxysilane, methylcyclohexyldimethoxy silane, di-isobutyl dimethoxysilane, and di-t-butyl dimethoxysilane.

14. (Currently Amended) The process according to claim 10, wherein the catalytic system comprises a catalyst component containing as essential components magnesium, titanium and halogen, and a cocatalyst compound ~~and an external donor~~.

15. (Cancelled)

16. (Currently Amended) The process according to claim [[15]] 10, wherein the catalyst component is ~~preferably~~ used in the form of particles having an average size range of ~~5 to 200 μm, preferably~~ 10 to 100 μm, ~~in particular 20 to 50 μm~~.

17. - 18. (Cancelled)

19. (Currently Amended) The process according to claim 10, wherein the catalyst component is prepared according to a liquid-liquid two phase emulsion method comprising:

- preparing a solution of a complex of a Group 2 metal and an electron donor or a precursor thereof in an organic liquid reaction medium,
- reacting said complex, in solution, with at least one compound of a transition metal to produce an emulsion, the dispersed phase of which contains more than 50 mol-% of the Group 2 metal in said complex,
- maintaining the droplets of said dispersed phase within the average size range 5 to 200 μm by agitation in the presence of an emulsion stabilizer and solidifying said droplets, and

– recovering, washing and drying said particles to obtain said catalyst component.

20. (Previously Presented) The process according to claim 10, wherein the transition metal is a compound of a Group 4 metal.

21. (Previously Presented) The process according to claim 10, wherein the Group 2 metal is magnesium.

22. (Currently Amended) The process according to claim 10, wherein said organic liquid reaction medium comprises a ~~C_6-C_{10}~~ $\underline{C_6\text{-}C_{10}}$ aromatic hydrocarbon or a mixture of ~~C_6-C_{10}~~ $\underline{C_6\text{-}C_{10}}$ aromatic hydrocarbon and $C_5 - C_9$ aliphatic hydrocarbons.

23. (Previously Presented) The process according to claim 10, wherein said emulsion is composed of

- a dispersed phase which is $TiCl_4$/toluene-insoluble oil, having Group 4 metal/Mg mol ratio 0.1 to 10 and of
- a disperse phase which is an oil less dense than the dispersed phase, having Group 4 metal/Mg mol ratio 10 to 100.

24. (Original) The process according to any of the preceding claims, wherein the propylene polymers are homopolymers, random copolymers, block copolymers or combinations thereof.

25. (Cancelled)

26. (Currently Amended) The process according to ~~any of the preceding claims~~ claim 10, wherein the hydrogen feed is maintained within ~~at most 3 % by volume, preferably~~ at most 2 % by volume of a predetermined level during the preparation of the first and the second polymers.

27. (Currently Amended) The process according to ~~any of the preceding claims~~ claim 10, wherein the polymerization reactor arrangement comprises at least one reactor selected from liquid (slurry) reactors and gas or vapour phase reactors.

28. (Original) The process according to claim 27, wherein the polymerization reactor arrangement comprises a cascade of at least two reactors selected from liquid (slurry) reactors and gas or vapour phase reactor.

29. (Currently Amended) The process according to claim 27, wherein the slurry reactor is a ~~bulk reactor, preferably a~~ loop reactor.

30. (Currently Amended) The process according to ~~any of the preceding claims~~ claim 10, comprising producing a propylene polymer having a Melt Flow Rate (MFR_2) of 0.01 to 1500 g/10 min.

31. (Original) The process according to claim 30, comprising producing a propylene polymer having a Melt Flow Rate (MFR_2) of 10 to 300 g/min.

32. (Currently Amended) The process according to claim 30, wherein the isotacticity of the propylene polymer is ~~above 95, in particular~~ above 98.

33. (Currently Amended) A process for controlling isotacticity of polypropylene polymers by using external donors, comprising

- feeding propylene together with optional comonomers along with hydrogen as a molecular weight controlling agent and a Ziegler-Natta catalyst system, including a catalyst component having as essential components Ti, Mg and Cl, a cocatalyst, and [[an]] first and second external ~~donor~~ donors, into a polymerization reactor arrangement formed by at least one polymerization reactor and
- polymerizing propylene together with the optional monomers under polymerization conditions in order to obtain a polymer product having a predetermined melt flow rate and isotacticity,

wherein isotacticity is adjusted by changing the external donor without changing the hydrogen feed and still maintaining the melt flow rate essentially at the same level.

34. (Original) The process according to claim 33, wherein the catalyst system comprises solid particles, which exhibit active sites evenly distributed throughout the particles.

35. (Original) The process according to claim 34, wherein the catalyst particles contain no external carrier.

36. (New) The process according to claim 13, wherein the catalytic system comprises a catalyst component containing as essential components magnesium, titanium and halogen, and a cocatalyst compound.

37. (New) The process according to claim 36, wherein the catalyst component is ~~preferably~~ used in the form of particles having an average size range of 10 to 100 μm.

38. (New) The process according to claim 37, comprising producing a propylene polymer having a Melt Flow Rate (MFR_2) of 10 to 300 g/min.

39. (New) The process according to claim 38, wherein the isotacticity of the propylene polymer is above 98.